UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/606,074	06/25/2003	Robert S. Weiner	04615-0100 33,213	4253

3490 7590 02/14/2008

DOUGLAS T. JOHNSON
MILLER & MARTIN
1000 VOLUNTEER BUILDING
832 GEORGIA AVENUE
CHATTANOOGA, TN 37402-2289

EXAMINER	
DANIELS, MATTHEW J	
ART UNIT	PAPER NUMBER
1791	

MAIL DATE	DELIVERY MODE
02/14/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/606,074	WEINER, ROBERT S.	
	Examiner	Art Unit	
	MATTHEW J. DANIELS	1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 November 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10,13 and 14* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10,13 and 14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. **Claims 1, 4-6, and 13** are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Weaver (USPN 3923941). **As to Claim 1**, Weaver teaches a method of creating a vinyl sheet product (3:59, 3:65-67, 2:5-24) comprising the steps of:

depositing a design material (2:45-64) onto a conveyor (9), said design material in the form of one of drips, streams (2:49, 2:60-63), chips and pellets deposited so as to not completely cover a top surface of the conveyor where applied (the balls, 8, are inherently smaller than the width of the substrate);

applying a first vinyl substrate layer of a predetermined height over on the conveyor over the design to create a vinyl sheet product, at least a portion of the design material remaining in contact with the conveyor (Fig. 1, item 22, 3:42-60); and

curing the vinyl sheet product, wherein when the vinyl sheet product is removed from the conveyor, the design material forms an indicia relative to the first vinyl substrate layer (3:58-60, Fig. 1, item 23). Removal of the article from the conveyor (Fig. 1, item 25) is interpreted to be an inverting, and in the alternative, inverting would have been obvious in cutting, packaging, and shipping.

Although Weaver does not explicitly disclose "curing" or that the design material does not cover the top surface of the conveyor completely, it is submitted that these aspects are inherent in that the material is "gelled" (3:40-41), which is interpreted to be the claimed curing step, and because the fluid applicators are used in tandem (2:60-68) which would not cover the entire substrate. However, in the alternative, it is submitted that it would be obvious that the plastisol materials would cure in the heating means, and that the amount and distribution of the design material is a result effective variable which influences the character of the marbleized sheet (2:52-55 and 3:12-20). Thus, it would have been prima facie obvious to adjust the amount of material applied or its distribution so as not to completely cover a top surface of the conveyor where applied. **As to Claim 4**, the design material of Weaver is a fluid (2:68), which is interpreted to be a liquid, and is deposited directly onto the conveyor (9). **As to Claim 5**, the fluid design material is gelled in heating means 20 (3:39-41). **As to Claim 6**, in view of the fact that Weaver's material is heterogeneous (2:51-52), it would have been inherent that at least two distinct colors of fluid design material were applied, including at least colored and translucent (2:8). In the alternative, it would have been obvious to provide multiple colors to achieve the desired goal of producing a marbleized sheet. **As to Claim 13**, it is submitted that cooling from the gelling temperature would have been inherent in that the article is subsequently used. In the alternative, it would have been obvious to cool the sheet to allow faster processing.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. **Claims 2 and 3** are rejected under 35 U.S.C. 103(a) as being unpatentable over Weaver (USPN 3923941) in view of Bartlett (USPN 2867263) and Fine (USPN 4349597). Weaver teaches the subject matter of Claim 1 above under 35 USC 102(b), or in the alternative, under 35 USC 103(a). **As to Claims 2 and 3**, Weaver a first vinyl layer but is silent to a second vinyl layer and scrim. However, Bartlett teaches that it is known to provide additional vinyl chloride layers or a reinforcing fabric (4:1-10) to a first colored layer of vinyl. Fine teaches additionally that it is known to provide a first polymeric layer, heat to a tacky state, apply a reinforcing fabric (scrim) to the tacky layer, and impregnate the fabric with a second polymeric layer, and subsequently gelling the layers (Abstract, second paragraph). One of ordinary skill in the art could have combined the method of Fine comprising a scrim and second vinyl layer to the first vinyl layer of Weaver in view of Barlett's suggestion to one skilled in the art that further reinforcement is needed for a gelled vinylchloride polymer.

3. **Claims 7-9** are rejected under 35 U.S.C. 103(a) as obvious over Weaver (USPN 3923941) in view of Mell (USPN 1730673). Weaver teaches the subject matter of Claim 4 above under 35 USC 102(b), or in the alternative, under 35 USC 103(a). **As to Claims 7-9**, Weaver teaches a hopper and lateral reciprocation while depositing the material to the conveyor (Figures, 2:60-65). However, Weaver is silent to the multiple nozzles or orifices. However, Mell teaches that it would have been obvious to provide multiple orifices to apply the liquid design material (Fig. 1). It would have been prima facie obvious to one of ordinary skill in the

art at the time of the invention to incorporate the method of Mell into that of Weaver because Mell provides a tandem pattern, which Weaver suggests (2:60).

4. **Claim 10** is rejected under 35 U.S.C. 103(a) as obvious over Weaver (USPN 3923941) in view of Reed (USPN 3264385). Weaver teaches the subject matter of Claim 4 above under 35 USC 102(b), or in the alternative, under 35 USC 103(a). **As to Claim 10**, Weaver is silent to the roller having an embossed indicia thereon and applying it to the liquid prior to applying the vinyl substrate layer. However, Reed teaches that it is known to provide a roller having an embossed indicia thereon (Fig. 2a, Fig. 5) and applying it to a liquid material prior to applying other liquids (Fig. 6). The prior art included each of the recited elements, and on one of ordinary skill could have combined the methods using the knowledge already available from the methods of Weaver and Reed regarding the processing of continuous sheet materials by placing Weaver's embossing roll between the application of liquid design material and prior to applying the first vinyl substrate layer in the method of Weaver in order to provide a design to the liquid material already on the conveyor.

5. **Claim 14** is rejected under 35 U.S.C. 103(a) as obvious over Weaver (USPN 3923941) in view of Suzuki (USPN 6589631). Weaver teaches the subject matter of Claim 1 above under 35 USC 102(b), or in the alternative, under 35 USC 103(a). **As to Claim 14**, Weaver is silent to the conveyor having at least two different heights. However, Suzuki teaches a process for making vinyl floor covering using a conveyor texture to transfer a desired pattern to a floor covering. It is submitted that the Suzuki process has at least two different heights (Figs. 45-47). One of

ordinary skill could have combined the process of Suzuki with that of Weaver by providing a texture to the carrier of Weaver to provide the expected result that the Weaver process would produce an article having a texture to improve the aesthetic or functional aspects of the Weaver article.

6. **Claim 16** is rejected under 35 U.S.C. 103(a) as obvious over Potosky (USPN 5645889) in view of Bartlett (USPN 2867263). Potosky teaches the subject matter of Claim 15 above under 35 USC 102(b), or in the alternative, under 35 USC 103(a). **As to Claim 16**, Potosky is silent to the second design material previously applied to the conveyor. However, Bartlett teaches that it is known to apply a design material to a conveyor (Cols. 2 and 3) which remains in contact with the conveyor until cured (Fig. 1, item 50). One of ordinary skill in the art could have combined the design application process of Bartlett to that of Potosky wherein each process performs the same function it did separately, to provide the expected result that the first vinyl substrate would be decorated on both faces, providing improved utility.

7. **Claims 17 and 18** is rejected under 35 U.S.C. 103(a) as obvious over Potosky (USPN 5645889) in view of Bartlett (USPN 2867263) and Fine (USPN 4349597). Potosky teaches the subject matter of Claim 15 above under 35 USC 102(b), or in the alternative, under 35 USC 103(a). **As to Claims 17 and 18**, Potosky is silent the scrim and previously applied second vinyl layer. However, Bartlett teaches that it is known to provide additional vinyl chloride layers or a reinforcing fabric (4:1-10) to a first colored layer of vinyl. Fine teaches additionally that it is known to provide a first polymeric layer, heat to a tacky state, apply a reinforcing fabric (scrim)

to the tacky layer, and impregnate the fabric with a second polymeric layer, and subsequently gelling the layers (Abstract, second paragraph). The second layer of Fine is equivalent to the first claimed layer. One of ordinary skill in the art could have combined the method of Fine comprising a scrim and second vinyl layer prior to the first vinyl layer of Potosky in view of Barlett's suggestion to one skilled in the art that further reinforcement is needed for a gelled vinylchloride polymer.

8. **Claims 19** is rejected under 35 U.S.C. 103(a) as obvious over Potosky (USPN 5645889) in view of Tuthill (USPN 3360414). Potosky teaches the subject matter of Claim 15 above under 35 USC 102(b), or in the alternative, under 35 USC 103(a). **As to Claim 19**, Potosky is silent to solid particles of polyvinyl chloride. However, Tuthill teaches polyvinyl chloride chips (Cols. 5-8). The claimed method differs from the method of Potosky by the substitution of the liquid design material with solid PVC chips. However, the substituted component and its function as a wear layer is known in the art. One of ordinary skill in the art could have substituted the design material of Tuthill for that of Potosky with the expected result that the surface would be made more wear resistant and have decorative effects.

9. **Claim 20** is rejected under 35 U.S.C. 103(a) as obvious over Potosky (USPN 5645889) in view of Mountain (USPN 3383442). Potosky teaches the subject matter of Claim 15 above under 35 USC 102(b), or in the alternative, under 35 USC 103(a). **As to Claim 20**, Potosky is silent to the laterally moving applicator. However, Mountain teaches that it is known to provide a design material with a laterally moving applicator. It would have been prima facie obvious to

one of ordinary skill in the art at the time of the invention to incorporate the method of Mountain into that of Petosky because Petosky suggests a method in which the decorative material is distributed and Mountain provides a means for distributing decorative material.

Response to Arguments

10. Applicant's arguments filed 28 November 2007 have been fully considered but they are not persuasive. The arguments appear to be on the following grounds:

a) The disclosure of Weaver is very clear that the top layer is intended to be the layer opposite the marbleized coating layer from the substrate. To clarify, the inversion of the vinyl sheet is now claimed and a particular side is described as being visible when installed.

b) Claim 4 has been amended to clarify that the liquid design material is deposited directly onto a conveyor.

c) There would be no motivation or suggestion to apply the rollers of Reed to the Weaver process.

d) Applicant disagrees that Suzuki teaches utilizing a conveyor texture for the purpose of providing a transfer pattern to a floor covering with at least two heights.

11. These arguments are not persuasive for the following reasons:

a) The removal of the article in the method of Weaver is interpreted to be an inversion, and additionally, inversion of the article would have been obvious as a result of packaging and shipping. The intended use regarding which surface is to be visible provides little limitation to the claim, and the article of Weaver is capable of installation with either face being visible.

b) Weaver's item 9 has been interpreted to be a conveyor. The fact that there is also a belt does change the conveying function of item 9.

c) Other rationales for combining references are no longer foreclosed. In this case, Reed provides teaching that it is known to pattern liquid material (Fig. 5, item 86) which is already in contact with a substrate or conveyor (Fig. 5, item 78). Weaver's sheet is obviously designed for use as a decorative item, and in this view, other treatments which would provide a greater degree of aesthetic variations would be desirable. For example, Weaver suggests that in some embodiments, it is desirable to retain a textured profile on the marbleized coating (3:53-54). Reed provides a method in which the texturized profile of the marbleized coating could be changed, modified, or enhanced.

d) This argument does not appear to consider Figs. 45-47 of Suzuki, which provides two different heights on the belt/liner, which provides a desirable texture to the surface. It is submitted that one of ordinary skill in the art would have found ample motivation or rationale for providing a texture to the conveyor (Weaver, item 9) in order to provide a texture to the bottom surface to increase the aesthetic appeal or functional aspects of the bottom surface.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MATTHEW J. DANIELS whose telephone number is (571)272-2450. The examiner can normally be reached on Monday - Friday, 8:00 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson can be reached on (571) 272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Matthew J. Daniels/
Examiner, Art Unit 1791

/Christina Johnson/
Supervisory Patent Examiner, Art Unit 1791

Application Number	Application/Control No.	Applicant(s)/Patent under Reexamination	
	10/606,074	WEINER, ROBERT S.	
	Examiner	Art Unit	
	MATTHEW J. DANIELS	1791	